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The Labor Movement has Never Favored Peace at Any Price. International Peace is in the Interest of Workers only So Long as it Involves No Threat to the Preservation of the Social, Economic and Political Gains which They Have Made.

Defense Strikes, Hours, Labor Supply, Wages

By Charles S. Slocombe
Personnel Research Federation,
New York, N. Y.

Four major labor problems face us as the defense program expands: avoidance of strikes, extension of hours of work, labor supply and wage rates.

A brief resume of how these problems have been dealt with in other countries, now at war, may help to indicate some of the ways that may develop here.

Compulsory Arbitration

There are bills before Congress now, providing for compulsory arbitration, and the banning of strikes. American labor unions, and experts in labor matters such as Dr. Lieserson, of the National Labor Board, do not think that legislation of this sort is likely to provide a cure for the situation that may develop.

English labor unions refused to agree to compulsory arbitration until Hitler smashed through France. Then, waking up to the gravity of the situation in which they found themselves, they changed their minds, and agreed to compulsory arbitration of disputes, and the prohibition of strikes and lockouts.

It must be noted, in passing, that legislation providing for compulsory arbitration and the prohibition of strikes does not prevent strikes. It just makes them illegal. There have been quite a number of wild cat strikes in England since the legislation was passed, and Australian experience with such legislation over the years has shown that serious strikes may take place.

Public opinion is a much more potent deterrant.

Strikes not Prevented

It is also to be noted, in passing, that clauses written into labor union agreements between employers and unions, banning strikes for the period of the agreement, do not prevent strikes. Some American unions have no objection whatever to agreeing to the insertion of such a clause in an agreement, even though it seems, on the face of it to ham-string them.

When they feel justified in striking, in the face of such an agreement, they say, "Well, the employer broke the agreement first, so it no longer holds, and we are free to strike to make him stick to the agreement." This we suppose might be termed 'casuistry'.

Returning to the English compulsory arbitration, it was put into effect through a government order, under broad emergency powers granted by previous legislation, and not by a specific act. It provides for a National Arbitration Tribunal of five men. Three of these are appointed by the government as permanent members. The other two are selected, to represent interested employers and labor in each case coming before the Tribunal.

The procedure is as follows. Either party to a dispute can, if it wants to, notify the labor department. If there is collective bargaining machinery in the industry the department refers the case to them. If there is not, or the dispute cannot be settled it is handed over to the Arbitration Tribunal within 21 days.

Decisions reached are then binding upon both parties concerned.

Strikes Just Made Illegal

Strikes and lockouts are banned, unless the Labor Department has not referred the case to the Arbitration Tribunal within the specified 21 days.

England has set up a series of trade boards, somewhat similar to those developing under the Wages and Hours Act in America. Under their system, wages and hours are agreed upon by a substantial number (not necessarily a majority) of employers and organized employees in an industry, in a district. When there is such an agreement reached, it is registered with the government, and becomes binding upon all employers and employees in that industry, in that district, whether they were represented in the negotiations or not.

These are called "recognized terms and conditions of employment." The compulsory arbitration order makes the observance of these compulsory.

A system is also developed whereby customary trade practices, regarding working conditions, may be filed with the local labor office, and also any change made in these because of the war situation. This is to facilitate a return to normal practices, when the emergency is over. Most agreements for departures from normal practices provide for an automatic return to normal, after the war.

This is the system set up in England for the avoidance of strikes. It has not completely abolished them, but has done so in the major industries.

It is being subjected to a big test now, because the unions in the metal trades, representing a million workers, have demanded a $2.50 a week increase in pay, which the employers have refused. The Arbitration Tribunal has the case before it.

Efficiency Maximum, 56 Hours

As the supply of specialized types of trained and experienced workers becomes more and more absorbed in America, the pressure for longer and longer hours will increase. While the Wages and Hours Act provides for a 40 hour week, it does not prohibit longer hours, if a company can afford to pay the overtime rates involved. Thus there is, in effect, no legal limitation of hours of work in America, for adult male workers.

But whether there is any legal limitation or not, the question arises as to what is the maximum number of hours of work that will produce maximum efficiency. English experience in manufacturing, and researches conducted there, during and since the last war, seem to show an efficiency maximum of 56 hours per week. Beyond this time, output per hour drops considerably, and accidents, sickness, absenteeism increase, so that added labor expense for the longer hours is in effect wasted.

Conditions in Japan

In Japan it was actually found, or stated, that there was a considerable increase in the number of fires in factories, when hours were unduly lengthened, due to excessive fatigue of workers.

The Japanese government consequently issued an order limiting hours of work for adult male workers to 12 per day, with not less than 1 hour off. There is no limitation on the number of days worked per week.

These limitations, in Japan, apply to adult male workers only. Latest reports seen, indicate that female workers in Japanese cotton mills, most of them between 7 and 14 years of age, work 13 hours a day, 7 days a week.

German Experience

Germany experimented with more or less unrestricted hours of work as the war started. But after a short time the deleterious effects on worker efficiency were such that they had to return to prewar standards.

The prewar hours were 48 per week, with time and a quarter for overtime. These were in effect before Hitler came to power, and he continued them. The only change he made was to allow averaging this over two weeks, so that the total time for two weeks was limited to 96 hours, with a maximum limit of 10 hours in any one day, with time and a quarter for hours in excess of 8.

It will be remembered that there was a strong pressure in America, at the time of the passage of the Wages and Hours Act, to allow averaging of hours, over a number of weeks.

When the war started in Germany in September, 1939, limitations on hours of work were virtually abandoned there. But that lasted only ten weeks, and the loss in efficiency, and increase in worker dissatisfaction was such that a return to the 8 hour day was made.

The Hitler government stated its policy as follows; "Even if output has to be increased, exaggerated demands must not be made on the workers. Accordingly, the relaxation of labor protection ordered at the beginning of the war could apply only during the initial period of adjustment to new tasks. That period having expired, the government is again fully concerned with the protection of labor. Excessive hours of work must be prevented."

How England Is Regulating Hours

IN SPITE of the previous war researches, and continued studies since, when the war broke out, English manufacturers started working their men 70 and 80 hours a week. The probability is that they paid a lot of overtime for nothing, because the men produced no more than they would have in 56 hours.

Hours are not regulated in England, but are determined by collective bargaining. The government consequently used its influence to stop excessive hours by issuing a pamphlet on the subject, for the guidance of employers. Following are extracts from this booklet:

Government Booklet

OWING to the situation in this country following the collapse of France it was necessary to call upon all those engaged on war production to make an intensive effort by working longer hours to speed up production to the utmost extent. It is still of vital importance to maintain war production at the maximum. It is of equal importance, if this end is to be achieved, to relieve the strain on workpeople caused by long and continuous hours of work, and for this purpose an adjustment in the present long hours of work is essential. This is a matter which must be dealt with by firms in accordance with their particular circumstances, and not by a general order. To achieve this the hours of work must be adjusted to prevent tiredness. The continuation of seven day working, with an average working week of between 70 and 80 hours, will quickly cause a rapid decrease in individual productivity owing to the abnormal strain. If prolonged, the output achieved in seven days will become less than what could have been achieved with the same group of workers in a shorter period. It is necessary, therefore, that the

average hours of work should be reduced to a lower level, the ideal being the figure which will give, under existing conditions, the maximum output.

It is not easy to determine this figure, which varies according to the circumstances of different industries, but experience shows that it is materially below the general hours at present being worked on war production. To maintain output and at the same time to reduce the working week it is clearly necessary to take steps to increase the size of the working force so that the man hours per week will not be diminished but rather increased. . . .

Suggests Gradual Reduction

IT MAY not be practicable to effect a reduction to the optimum hours immediately, in which case an interim arrangement must be put into operation. An illustration of a practical arrangement that would relieve the strain on workpeople during an interim period is given below:—

> "*First Week.*—The day shift operates from 7.30 a.m. until 7 p.m. on four of the five days, Monday to Friday, and from 7.30 a.m. to 5 p.m. on Saturday and on the other day chosen for a stoppage at 5 p.m. during the week.
>
> "Meal breaks are 1¼ hours (1 hour at mid-day and ¼ hour for tea) for long days, making the actual hours worked 10¼, and one hour on Saturday and the other short day, making the hours worked 8½—average working week, 58 hours.
>
> "*Second Week.*—The day shift operates as above from 7.30 a.m. until 7 p.m. on four of the five days Monday to Friday, and from 7.30 a.m. to 5 p.m. on the short day in the week. On Saturday work ceases at 12 noon (no meal hour). Sunday work is continued from 8 a.m. to 5 p.m. with a break of one hour—average working week, 62 hours.

This cycle of hours is repeated, giving an average working week for the day shift of 60 hours.

The night shift operates from 7.30 p.m. to 7 a.m. on five nights a week, Monday to Friday, with breaks amounting to one hour for meals, the actual hours worked being 10½ per night. A sixth night can be added fortnightly if production demands it. . . .

As soon as the necessary labour force has been acquired and trained, steps must be taken to institute a permanent scheme to achieve the two primary purposes in view, which are:—

> (*a*) a reduction in the working week to the optimum hours, which experience in many manufacturing fields shows to be in the region of 55 or 56 hours;
>
> (*b*) an increase of man hours and the productivity per man hour . . .

Recommends Rest Pauses

IT IS of vital importance that there should be adequate breaks for all workers during which the management should endeavour to provide easy facilities for the workers to purchase refreshments likely to restore their physical and mental vigour. It is suggested that a break interval of 10 minutes' duration might be introduced near the middle of the normal working period. For some cases other arrangements (for example a break in each hour) may be preferable.

The Labor Supply Problem

THE National Defense Commission in America has developed plans for 20 local offices, throughout the country, to aid in solving labor supply problems. To date, this organization is not officially hooked up to the state employment services, though the War Department thinks that they should be used by employers for hiring, as a means of controlling and determining needed workers, in relation to the drafting of men.

Germany set up local labor supply offices when the war began. So did France, before her downfall. Now England has done the same.

English regulations, issued under Emergency Powers, go far in this matter. Surprizingly so, for a democracy. They provide that any man or woman may be required to do any work in any place that the government orders them to. If they are on relief, or on the unemployment compensation rolls, their pay will be cut off if they refuse to do what they are told to do.

English employers in certain essential industries are also prohibited from hiring employees from other essential industries. They are prohibited from hiring employees except through the government labor exchanges, corresponding to our state employment services. Advertizing for help is also banned.

America is not in the war, and hopes to keep out of it, but as the defense program expands, and the labor supply pinch tightens there will be increasing pressure for some form of labor supply regulation.

Working through Local Agencies

THE English have set up a National Labor Supply Board, as has Canada. This board intends to work in close harmony with labor unions and employers.

In so far as most of the labor supply problems are local ones, reliance is placed upon the local labor exchanges, corresponding to our state employment agencies, but with general supervision by Area Supply Boards, on which are represented men with a practical working knowledge of industrial conditions. Local panels of advisory people also assist in working out the problems of particular industries.

Unemployed workers may be required to work at any job they are allotted to,

irrespective of whether the pay is lower than that of the job they have just left, or whether it is in the same occupation.

Of course, there is as yet no detailed knowledge as to how these arrangements are working out. They are powers of the government, but may not yet be enforced.

"No Poaching" Regulations

SHORTAGE of skilled workers has led to the issuance of regulations prohibiting the transfer of workers (that is, their hiring into other industries) from engineering, building, civil engineering, agriculture and coal mining, except with the permission of the local government agency.

It is known that this regulation is not working out too well, because workers are still able to shop around in the same industry for higher wages.

The English government, as we have, is encouraging training of workers. They are not relying solely upon educational institutions and technical schools, but are setting up government training centers. Men completing training under this scheme are put into the Reserved Occupation classifications, and are either hired into industry in these classifications, or go into the army to work at these trades there.

It is hoped to train 100,000 men a year in this way by short intensive courses. Trainees who have had short courses are placed with employers who are prepared to continue their training.

The unemployed who undertake training are given an allowance by the government.

Technical schools and colleges are expected to supplement this program, and provide an additional 50,000 trained men and women a year.

War Time Wages

LAST, but not least, is the knotty problem of war time wages. It is not difficult to legislate minimum wages, but to put a ceiling on wages—a maximum limitation—has been found very difficult, even in totalitarian countries.

Indirect ways of dealing with this problem seem to be most generally tried; that is regulating the competition among employers for workers, particularly where it involves outbidding each other; price fixing to keep the cost of living stable, as is done in Germany; and training as many workers as possible to bring the supply more nearly in line with the demand.

One of the most difficult, and upsetting, aspects of the wage problem is the change in the general wage structure. This is most likely to cause unrest and strikes.

Differentials Reduction Causes Strife

With the expansion of mass production industries semi-skilled and unskilled workers on piece rates, are likely to earn more money than skilled workers on day rates. Hence the differential between them, in weekly earnings, is reduced or abolished.

Even among skilled workers the wage advances in different trades may vary, as for instance in the last war, when in England in the shipbuilding industry, painters got a 2% raise while fitters got a 43% increase.

These changes in differentials, if they take place here, are likely to widen the split between the skilled AFL worker unions and the CIO unions. They are also likely to increase internal dissensions and jurisdictional disputes among the AFL unions.

So far, in the present war countries, the most potent influence on wage increases has been the increase in the cost of living. Most of these increases have been flat ones, rather than percentage increases. This has tended to further reduce the differential between the pay of skilled and unskilled workers.

Cost of Living Base

Sometimes these increases have been in the nature of cost of living bonuses. Whether this has been so or not, they have been related to cost of living increases. Where there are government or trade boards, involved in determining wages, the great tendency is to tie wages to the cost of living. In some cases there has been an almost automatic rise in wages as the cost of living has gone up.

Cases are reported in which the increase in wages caused by increase in cost of living has varied according to the pay of different classifications, those with the least pay being given the biggest raise. This happened in Italy.

In another case workers in the lower pay brackets were given raises amounting to 75% of the increase in cost of living, while higher paid workers received 50% of the increase in cost of living. These pay schemes are worked out on the theory that, in an emergency, the worker must make some sacrifice, and not receive pay increases fully proportionate to cost of living increase.

"In Times like These Each and Everyone of Us on the Canadian National Railways can Contribute Most to the National Effort by Attending to His Work and Carrying On as Efficiently as Possible," Mr. Hungerford, President.

Union-Management Cooperation

Report on Plan of
Canadian National Railways,
Montreal, Canada.

THE Canadian National Railways has had in operation a union-management co-operative plan for fifteen years. The plan is based upon definite agreements between the company, and the unions concerned.

These agreements are distinct from the collective bargaining agreements, determine the areas of cooperation, and specifically exclude all matters that may involve contention.

Each year an annual meeting is held to review the results of the year's work. This is attended by the president of the company, and ranking officials in the several departments together with ranking officers in the unions concerned.

Below are given extracts from the report of the last meeting to show how the system works, and the ground it covers.

Company President's Opening

MR. CHAIRMAN and Gentlemen, it gives me a great deal of pleasure to extend a very hearty welcome to this meeting. The System Co-Operative Committee meetings have become more or less of an institution, to which we all look forward with a great deal of pleasure. I for one am always pleased to have an opportunity of attending a System gathering. The underlying principle on which this Movement was founded is co-operation, and goodwill,—mutual understanding has followed.

Prior to the inauguration of this movement on the Canadian National Railways

we made a study of co-operative arrangements in effect in other parts of the world and a number were found to be very successful. It will be appreciated that in an organization of the magnitude of the Canadian National Railways, which is national in scope, that there are various problems that can only be considered as our very own and through this Co-Operative Movement we have been able to establish machinery which implements the consideration and solution of many of these problems. This little Movement, in itself comparatively small, is a shining example by which the people of this war torn world could be greatly benefited.

Summary of Results Reviewed

THESE statements show the number of suggestions brought up between 1925 and 1939, classified into groups to indicate what the suggestion was in connection with; also the number of items brought up by each committee and the disposition made thereof. The figures showed that during the year 1939, seventy-four committees had held a total of 751 meetings; 1243 new suggestions were produced and 204 pending subjects were reviewed making a total of 1447 items dealt with of which 1046 were accepted, 126 dropped and 275 reported pending at end of year.

Since the inception of the Movement 25,012 subjects have been produced of which 19,979 were advanced by employees and 5,033 by management representatives. Classification of these suggestions shows that 315 items were in regard to securing traffic for the railway, 4146 were in connection with First Aid and Accident Prevention, 1084 dealt with Fire Prevention and 19,467 were in connection with other Co-Operative matters in general (See Table I, page 246).

Manufacturing in Main Shops

THE report indicates that during the year 1939 orders were placed by the Stores Department for the manufacture of articles at main shops to the extent of $679,895.78; in addition expenditures were made to the extent of $170,072.20 in connection with the construction of new equipment making a total of $849,967.98 for labour *only*. The 1939 figures exceeded the 1938 expenditures by $151,921.75 and the average of those for the past eight years by $188,c70.69. The foregoing figures cannot be taken as indicating the total work done in the shops as the figures only represent 6.3% of the total payroll but the figures do give some relative indication that a worth while effort is put forth to provide work for the shops.

The representatives of the employees from both Canadian and U. S. Lines expressed their appreciation for the amount of work provided from this source and stated that they considered that they were in a position to do considerable more work efficiently and economically.

It was stated for the Management that the question of doing considerably more

work in our shops is one of policy and a factor that must be borne in mind is that the railway must reciprocate and place orders for materials with business firms in order to secure revenue producing traffic from them. This question has been dealt with fully in previous minutes as reported in detail under Item No. 7 of meeting of November 7, 1939.

TABLE I

Canadian National Railways

Union management co-operative movement—mechanical section; classification of suggestions offered at co-operative committee meetings

GROUP NO.	CLASSIFICATION	1934 AND PREVIOUS YEARS	1935	1936	1937	1938	1939	TOTAL
1	Securing Traffic for the Railway	140	6	17	32	64	56	315
2	Measuring Production System	55	—	1	—	—	4	60
3	Operation of Co-Operative Plan	136	9	5	8	3	11	172
4	Apprentice Instruction	25	1	—	—	1	—	27
5	Passes; Half-Fare Orders, etc.	31	1	1	6	1	1	41
6	Co-Operation in Production; Improved Work; Punctuality, etc.	82	2	1	2	3	—	90
7	Increase in Staff; Promotions	94	3	2	2	—	3	104
8	Safety & First Aid	2,541	368	301	329	257	350	4,146
9	Fire Prevention	761	78	47	52	71	75	1,084
10	Standardizing Forces	31	3	1	—	1	1	37
11	Condition of Shops & Grounds; Heating; Sanitation; Repairs	2,778	365	363	381	296	359	4,542
12	Output Records	57	1	1	—	—	1	60
13	Developing New Devices; Manufacturing Equipment for Shops, etc.	1,300	8	21	51	45	50	1,475
14	Purchase New Shop Equipment	1,507	28	30	32	6	5	1,608
15	Care of Tools & Machinery	326	82	56	70	25	31	590
16	Repairs to Machinery	2,284	75	59	93	73	61	2,645
17	Defective Materials; Purchases	559	24	20	10	5	21	639
18	Manufacture of Material instead of Purchasing; Increased Work	205	2	1	4	10	5	227
19	Economy; Reclaiming Material	596	25	18	9	16	31	695
20	Storage and Handling Materials	983	46	22	54	19	24	1,148
21	Standardizing Materials	127	10	6	3	3	4	153
22	Shop Methods & Practices	2,526	122	162	128	96	83	3,117
23	Alterations to Standard Designs for Locomotives & Cars	391	13	13	23	19	14	473
24	Maintenance of Locomotives & Cars	689	62	18	25	36	22	852
25	Lunch Rooms; Lockers; Garages, etc.	163	43	32	42	30	28	338
26	Miscellaneous	355	3	7	3	3	3	374
Total		18,742	1,380	1,205	1,359	1,083	1,243	25,012

Employment Stabilization Analysis

STATEMENTS entitled *Analysis of Employment, Craftsmen and Helpers* for the years 1927 to 1939 inclusive, were reviewed.

The Chairman explained that the figure representing normal schedule hours—2032 is arrived at as follows: 365 days—deduct 111 for Saturdays, Sundays and seven holidays which leaves a balance of 254 days,—254 × 8 hours per day—2032 hours.

Details for each main shop for each year are shown. They show; normal schedule hours; hours worked per average man drawing pay, factor of stabilized employment and total disturbed time. Disturbed time is divided into that due to the company, through closed shop and labor turnover, and that due to the men, through absenteeism, lateness and labor turnover. They are summarized below.

YEAR	FACTOR OF STABILIZED EMPLOYMENT	DISTURBANCE DUE TO		TOTAL
		Company	Men	
1939	76.3	14.5	9.2	100.0
1938–34 average 5 yrs.	73.6	21.4	5.0	100.0
1938–29 " 10 "	72.8	22.5	4.7	100.0

Summary of fire prevention items brought up at co-operative committee meetings in 1939 compared with 1938, 1937, 1936 and 1935

	1939	1938	1937	1936	1935
Atlantic Region	20	19	11	8	10
Central Region	16	20	18	17	38
Western Region	33	24	16	11	16
G. T. W. Railway	6	8	6	9	14
Central Vermont Railway	—	—	1	2	—
Total	75	71	52	47	78
Classification					
Rectification of hazardous conditions and practices	51	47	23	23	30
Repairs to water lines, hydrants, chimneys, and added protection	16	8	21	14	25
Fire extinguishing apparatus	8	16	8	10	20
Violation of Rules	—	—	—	—	3
Total	75	71	52	47	78

As in previous years the report was presented as a matter of information as indicating the status of stabilization of employment.

Explanatory Notes

THE average number of men divided into the Total Hours Worked, equals Hours Worked per Average Man Drawing Pay.

The Total Disturbed Time is the difference between the Normal Schedule Hours and the Hours Worked per Average Man Drawing Pay.

The Total Labor Turnover—Due to Company and Men—is what remains of the total Disturbed Time, after deducting Absenteeism and Lateness, this amount then being prorated in accordance with the number of men discharged, transferred to other payrolls, and closing of shops, which is assignable to the Company; and those deceased, pensioned and leaving of own accord, which is assignable to the Men.

Apprentice Training

REPORT *of apprentice training* was reviewed. Some of the important features are as follows:

Apprentices in Service January 1, 1939	953	
" taken into service during 1939	271	1224
" completed training 1939 (98 retained in service)	114	
" on military service	34	
" resigned or deceased	17	165
" in service December 31, 1939		1059
Increase at December 31st over January 1, 1939		106

The report was discussed in general and the employee representatives congratulated the railway on the very efficient work that was being done in educating and turning out skilled mechanics with a thorough grounding of the fundamentals of their trade. Opinion was expressed that the increase in training of apprentices in the running trades was a step in the right direction and that this practice should be encouraged in order that the apprentices may establish seniority with the expectation of their being retained in the service.

It was also stated that in the future the adoption of more effective and efficient machinery would probably lead to a reduction in the demand for labour and, therefore, serious study should be given as to what may happen after the war with a view to assisting industry in general to formulate plans that will enable production for peace, as well as for war, and the avoidance of slack times with consequent benefit to the country in general.

Typical Employee Suggestion

AT THE Western Region Committee meeting held on March 18, 1940 discussion was held in regard to a wheel raising device for raising solid truck sides developed by Carman W. Hutchison of Prince Albert. It was recommended by that Committee that the designer be commended for his efforts towards improving the railways' repair facilities and that plans of the device be distributed in order that it may be considered for system use. It was reported that the device referred to is light in weight, easy to handle and that with its aid one man can change a pair of wheels in 20 minutes.

The Management representatives stated that a number of wheel raising devices were being used at the present time. Some are better than others and while the device developed at Prince Albert had merit it was not considered that the device was outstandingly superior to other devices although no doubt suiting conditions admirably at Prince Albert. Other employees had devices in use some of which the employees had themselves developed.

The fact was stressed that permission for the use of devices developed locally must be received from the proper officers. Western representatives of employees indicated that the merits of the Prince Albert device had not been appreciated by the Management. The device will be further studied. It was pointed out that arrangements are in effect whereby the Regional head of a department can suitably compliment employees for their efforts in developing new devices and it was arranged for the necessary action to be taken in this instance. Adopted.

Fire Prevention

THE following is a summary of items in respect to Fire Prevention reviewed at Co-Operative Committee meetings during the year 1939 and compared with the four previous years.

Attention was drawn to the fact that the fire losses for 1939 amounted to $217,911 and that this figure compared with an annual average of $348,419 for the preceding five years and an annual average of $402,000 from 1923 to 1935.

Opinion was expressed that the interest displayed by the members of Co-Operative Committees in regard to fire prevention activities assisted to a great extent in keeping fire losses at a minimum. Attention was drawn to the fact that fire prevention consciousness by all concerned limits the possibility of a shop being burned down which in turn would put men out of work.

Accident Prevention

MR. A. O. Beck, System Supervisor of First Aid and Accident Prevention, on request from the Chairman reviewed the accident statistics for the year 1939 and made comparison with the years 1938 and 1937. The figures summarized below cover *injuries* to employees of the M.P. & C.E. Department at *all outside points as well as at main shops*.

The average frequency rate for the 14 shops shows that a consistent improvement has taken place, viz., in 1937 it was 31.64 per million man hours worked, for 1938 30.13 and for 1939 28.48. These frequency rates indicate that:

In 1937	there	was	1	Lost	Time	Accident	for	every	31,603	Man	Hours	Worked.
In 1938	"	"	1	"	"	"	"	"	33,191	"	"	"
In 1939	"	"	1	"	"	"	"	"	35,111	"	"	"

The man hours worked in 1937 (20,068,121) were 15% above those worked in 1938 (17,126,494) and the man hours worked in 1939 (18,327,909) were 7% higher than those worked in 1938 but 9% below the 1937 figure.

Appreciation was expressed by Mr. Beck for the continued co-operation of all Supervisory Officers and the members of the respective Co-Operative Committees.

To the latter special commendation is made for the various practical devices and suggestions submitted.

It was brought out that on the Western Region the practice of appointing a subcommittee of the Co-Operative Committees, particularly at the larger points, to investigate accidents and report details at Committee meetings had resulted in a substantial reduction in the number of injuries sustained and it was considered that if the practice were followed at other points and more personal supervision given by foremen and other supervisory officers considerable benefit would be derived.

Securing Traffic for the Railway

THE Chairman stated that in accordance with the practice established some time ago, means of increasing revenue for the Canadian National Railways and improving service rendered to the public were discussed at most Co-Operative Committee meetings. He mentioned that a resumé of the discussions recorded in regard to this subject revealed that it had been reviewed 364 times during the past year.

To assist in the solicitation of traffic details in regard to conventions to be held by societies, service clubs and other associations, proposed picnics and other sporting events, were submitted to representatives of the Traffic Department and the report indicates that considerable passenger, freight and other business was secured.

Suggestions in regard to distribution of advertising literature, rearrangement of train schedules, providing additional train service, furnishing improved equipment, developing means to increase the volume of L.C.L. shipments, introducing some method of directing attention of passengers to points of interest along the line of travel were brought up for discussions and the decisions reached were referred to the proper officers for attention.

Professor Slichter was asked by the Chairman to comment on how he found the Co-Operative Movement after an absence of a year or so. Mr. Hills stated that he was sure everyone would be interested in hearing from Professor Slichter.

Some Comments by Sumner Slichter

MR. CHAIRMAN and Gentlemen: I much appreciate the opportunity and the invitation to come here and I am glad that conditions were such that I was able to come.

Mr. Hungerford this morning referred to the Co-Operative Movement as an institution on the railroad. I do not see why it should not be an institution wherever labour organizations are recognized. The schedule arrangements which you have in effect between the organizations represented at this gathering and the railroad give the terms of the employment contract, but there are many matters which you cannot handle by putting another clause in the schedule or by making it a matter of contract.

Consequently wherever labour is organized, it needs more than the schedule to deal with matters that are of interest to labour and management. This is what this

Co-Operative Movement does. It provides an opportunity for talking over many things such as you talked about today, which are matters of mutual interest but which are outside the schedule.

Survey of Plans

WE HAVE been doing some work at Harvard that might interest you and I would like to mention it to you. I have had a man in the field for much of the year studying recent cases of union-management co-operation. We are trying to compile for each one of these cases a sort of a case record, that is, how it started, how it has been working, etc. Our funds, of course, are limited so we have not gone west of the Mississippi (although we have some record of instances of union-management co-operation on the Coast) and we have not gone very far south.

We have been following about 25 cases from Wisconsin on the west and north of the Ohio. They are just about divided 50–50 as to origin between management and employees. Most of the cases, about 20, are in places where costs of material and labour are high or where competitive difficulties existed. There are a few low cost companies among them. I think that only five of the 25 co-operative plans have ceased to operate. Our field work indicates that there are many different reasons why co-operative plans may cease.

There was a big store in Philadelphia which had one. The union developed internal troubles and the plan ceased to operate. It requires good judgment and good management to make a success of union-management co-operation. Consequently you are entitled to feel a certain satisfaction and pride in having made a success of your Co-Operative Movement for 15 years.

Some Succeed, Some Fail

IN OUR studies we have found some instances of qualified technicians being associated with the union side of co-operative movements. For example, I have in mind a large hosiery company in Milwaukee which was about to abandon its seamless department and confine itself to full-fashioned hosiery, the full-fashioned part of the business being profitable and the seamless running in the red. The local union called on its national office. It so happened that the national office of the union had a very competent man whom they sent out and who spent about a month studying that department. He set up a technical programme which involved 195 changes of one kind or another and which will take about two years to put into effect—they have been at it for about 15 months. That department of the plant is now in the black and it will get further in the black as the programme is completed.

The company has lowered its selling prices in order to meet competition and yet with the help of the union it has managed to cut operating costs so that there is a little margin and the jobs of about 600 people have been saved in that department of the business. I could give you the opposite kind of a case where the co-operative efforts have struck snags of one kind or another and which have not been so successful.

Below are Exhibited Materials from Three Companies, Dealing with the Relation of the Company Training Program to That of Vocational Schools; Instructional Material for Learners and Job Descriptions for Use In Training.

I Mechanical Trades Training

Reports from Three Companies

THIS recommendation is based upon a consideration of the following:

1. What other concerns in this area are doing and the results they are getting.
2. What the local Vocational Schools are equipped to do and their willingness to do it.
3. The situation existing within our Works.

Training by Other Companies

SO FAR as we have been able to determine, no other local company attempts to carry on any training which can be done for them by local educational institutions.

In the mechanical divisions the general plan is to conduct the shop training as a part of the regular production job, while the related classroom instruction is done by the vocational schools on company time. In many cases this is done at the schools, when they are near, during the day. If the school is not near the instructor goes to the plant and holds classes there during working hours.

Larger companies subscribe to programs of this type. Small companies have the vocational schools conduct both the shop and classroom instruction on the employee's own time.

In a large percentage of these cases the trainees are indentured apprentices. However, the schools do not require that they be indentured as does the Federal set up, but they must be working in industry at the same kind of work they are studying.

The shop instruction in most of these industries is carried on by a planned job

STEPS IN DOING JOB

	SHEARMAN	FIRST HELPER	SECOND HELPER	THIRD HELPER
1	Grasps east side of strip.	"Mikes" sheets in piler for gauge.	Throws heavy sheets off conveyor.	Grasps west side of strip.
2	Feeds strip into pinch rolls.	Throws heavy sheets off piler.		Guides strip into pinch rolls.
3	Lowers pinch roll onto strip with air valve control.	Raises piler back stop with air valve.		Goes to north side of slitter knives.
4	Feeds strip into slitter knives with pinch roll inch button.	Pushes out lift.	Pushes out lift.	
5	Goes to north side of slitter knives.	Helps turn over top sheet.	Helps turn over top sheet.	Watches scrap for proper shearing.
6	Grasps east side of strip.	Inspects for scratches and bad edges.	Sets skids in piler box.	Grasps east side of strip.
7	Feeds strip from slitter to roller level with inch button.	Goes to slitter knives.	Lowers piler back stop with air valve.	Guides strip from slitter to roller level.
8	Runs strip into roller level with roller level inch button.	Mikes strip and marks where proper gauge begins.	Sets metal piece against back stop.	Crosses to west side.
9	Feeds slack in strip with slitter inch button.	Returns to conveyor table.		
10	Cuts off heavy sheets by turning master switch "on".	Throws off heavy sheets.	Throws off heavy sheets.	Takes coil ticket to weighmaster.
11	Runs 1 waster into piler box.		Guides waster into piler box.	
12	Sets counter at zero.	Brings up skids.		Piles scrap and wasters.
13	Turns counter switch to "on".			
14	Starts conveyor with conveyor control.	Piles scrap and wasters.		
15	Starts shear with master control.		Keeps pile straight in piler.	
16	Maintains proper loop between slitter and roller level with slitter rheostat.			
17	Increases speed with master rheostat.			
18	Maintains proper speed of conveyor table with conveyor rheostat.			
19	Inspects lift if desired.	Relieves shearman when he wishes to check lifts and surface.		
20	Fills in all information on coil ticket except number of sheets.			
21	Checks next coil ticket for order, size, gauge and heat.			
22	Stops counter at end of prime sheets.			Opens cones with control turned to out.
23	Stops conveyor with wasters and heavy sheets on conveyor.	Mikes sheets in piler.		Removes block from in front of coil and push coil into cones.
24	Writes number of sheets on coil ticket.	Return to item 1.	Return to item 1.	Turns cone control to in and elevator to "up" until the cones are into and against coil.
25	Clears slitter knives of scrap.			Removes wire from coil.
26	Goes back to start new coil.			Crosses to west side.
27	Return to item 1.			Return to item 1.

When a three man crew is used the number 1 helper will pile the sheets in the piler, mike for gauge, and take care of the piler box. The number 2 helper will start coils into the line, pile scrap and throw off waster sheets and heavy gauge. He will, also, bring up skids for the piler box.

rotation for definite periods of time for each assignment. Also in most cases the trainees are covered by age and rates of pay limitations.

The development of these programs for each industry is done largely by the vocational schools.

Vocational Schools

THE vocational schools are very well equipped for training in the mechanical trades. Not only are their shops well equipped, but they are better equipped than is industry for developing related material and giving related instruction. They have better classroom space and equipment and better trained and more experienced instructors.

Some of them have very fine metallurgical and electrical laboratories which are much superior to anything most industries can boast of. They are better supplied with funds with which to properly finance such programs. They are also supplied with better trained supervisors for this kind of work, and can secure State and Federal aid in solving their trade and instruction problems.

In conducting such training they usually use the same instructor for both shop and class instruction for a particular group.

The schools are very cooperative and are more than anxious to aid industry with its training problems. They will put each individual on any particular shop assignment at any time the employer wishes, and will use the related material prepared by the employer and will conduct the class in any manner the employer desires.

These vocational schools are equipped to train in levels of skill corresponding to our labor grades 4, 5, and in most cases, 6. They can cover these levels in lathes, mills, grinders, drills, punch presses, hand screw machines and shapers.

Our Works Situation

EXPERIENCE with our Training Program has brought to light some undesirable as well as desirable features.

Efficient and economic training can only be done in general by a full time shop instructor. The production supervisor usually is neither capable nor has the time to give to shop instruction.

The method of depending upon line supervisors to recommend the group from which trainees are selected is not conducive to best results. He cannot know anything about employees' abilities and capacities except as indicated by the job they are doing, and he does not know enough about the qualifications required by the training program.

The related classroom instruction is not closely enough related to the shop instruction. In many cases this is due to our inability to develop related material fast enough to keep up with the expansion of the shop program.

Promotion training cannot be efficiently done in the lowest levels of skill, and

does not work well in small parts production shops that employ only the lower grades of skill.

The program is not properly sold to the line organization and is not sold high enough up the line at the beginning.

Trainees classified under labor grade 5 or better can be trained more economically, and are received better by line supervisors because they have greater versatility, and usually greater productivity. Also they require less supervision and less instruction.

Most of these trainees who have real mechanical ability and ambition have shown a willingness to take additional training in outside schools on their own time.

Recommended Training Set-up

It is our recommendation that future training programs for the mechanical trades be set up under the three following classifications:

Job Training

This training should be conducted by the line organization, and should carry the trainee through the lowest levels that is, labor grades 1, 2 and 3. In this level the trainee would become acquainted with company methods, the use of small tools, measuring instruments, safety, etc., and he would have an opportunity to prove he is a worth while employee.

This training should aim at bringing those with the greater capacity up to grade 4 in all the work of the particular shop. Those who do not seem to have all around capacity should be brought up to grade 4 in the one or two skills for which they seem fitted.

All job training should follow a planned progression within each shop and the Industrial Relations Branch's only part in this training would be to help the line set it up, when and if called upon.

In some few such cases some classroom work may be desirable. This program should cover the employee's first year of service.

Vocational School Training

At the end of the job training program the outstanding trainees should be encouraged to go to outside vocational schools for further training. These schools can train through our labor grades 4, 5 and in most cases 6.

It should be an established policy that the company will do only such training as the employee needs, and cannot get outside on his own time.

It is our feeling that the company should cooperate with these schools to the extent of encouraging desirable employees to take their courses, furnishing the

schools with certain related material with which to supplement their own, and having one coordinator to visit the schools periodically.

This coordinator would have no contact with the employees. He would see that proper notations were made on personnel records of those taking courses and see that the individual's supervisor was kept informed on the progress made.

Promotion Training Program

THE objective of this program should be to develop the higher levels of skill and should include only outstanding men from the Vocational School programs. This training should start with not lower than Grade 6, and should be open only to individuals, who by their work in the Vocational Schools, have demonstrated their capacity to become highly skilled specialists, detail makers, instrument makers, machinists and toolmakers.

This group should be the only group which could be considered as analogous to apprentices. This training must be done by the company, because the vocational schools cannot carry on training in these levels. The type of operations at this stage would call for making parts too expensive for the schools to make without a market for their disposal. Also it is at this level that potential supervisors, engineers, designers, etc. should become distinguishable.

This program should be set up along the lines of the present promotion program except that one hour per week of classroom work should be sufficient at this level. Also a few well equipped shops should be selected to do all the training and it should be handled by a full time instructor in each shop. The people handling this work should come under the Division Managers.

The Industrial Relations Branch's responsibility should consist of helping to establish the program, handle necessary transfers from one Manager's organization to another, and coordinate the program to see that the methods used are standard in all organizations.

Training never has been and never will be done properly when the shop supervisor is directly responsible for training and when those responsible for *promoting* training report to the line organization.

II Job Sheets for Learners

SPEED in training, and the final skill of the man trained, is definitely increased by the use of good training material. This is best worked out by the personnel department, in consultation with the line organization.

There might be developed job sheets for each operation, these to be mimeographed so that one is available for each man or boy being trained. Economy in time of instructors is also obtained, because intelligent learners can be largely left to themselves, and the instructor's time be devoted to those who learn more slowly.

Another advantage is that from the start the young worker learns to work on his own from written instructions, blue prints and specifications.

Below are given, as examples, two such job sheets, used in a steel mill.

Beveling with an Oxy-acetylene Cutting Torch

Specification: Bevel edges of scrap plates.

Purpose: To become familiar with the use of the oxy-acetylene cutting torch for beveling.

Materials: Supply of scrap plate $\frac{1}{4}''$ to $1''$ thick.

Tools: Oxy-acetylene cutting outfit,
Steady rest.

Procedure:

1. Select convenient table or bench to work at and provide yourself with an ample supply of scrap plate from the scrap box.
2. Select piece of scrap having a straight edge at least six inches long, and place piece on table so that its straight edge extends a few inches beyond the edge of the table.
3. Place steady rest on piece to be cut. Have edge of steady rest about an inch from edge of piece.
4. Hook up cutting outfit.
5. Put on goggles.
6. Light torch and adjust flame for cutting.
7. Tilt torch so that tip makes about a 45° angle with plate to be cut.
8. Preheat spot at which cut is to be started, open cutting valve, and proceed to make the cut.

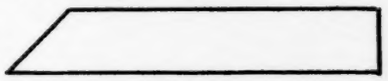


FIG 1

9. Repeat above operations, making several cuts at various bevel angles (30°, 45°, 60°).

10. Double-bevel the edge of a plate by first beveling one edge, and then turning plate over and beveling other edge (fig. 2). Be sure that cuts do not overlap. It is advisable that the two cuts *do not* meet (fig. 3) for this prevents any change in the original dimensions of the plate. Strive to obtain good, clean, even cuts.

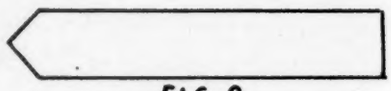


FIG 2

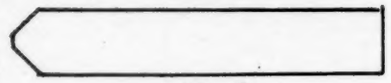


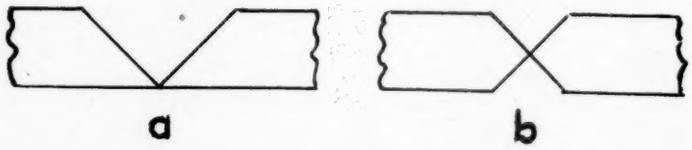
FIG 3

11. Return all scrap to scrap box.
12. Take down and put by cutting outfit.

Questions:

1. What is the purpose of beveling? When is a single bevel used? a double bevel? None?
2. Does the position (with reference to the direction of torch movement) of the pre-heating holes in the tip have any effect on the appearance of the cut. Do not answer until you have made cuts with the pre-heating holes in each of the positions shown below.

3. Sometimes the slag from the burning process is easy to remove, and other times, very difficult.
   Explain.
4. Explain in detail just how a tip should be cleaned. What are the improper methods, and what makes them such?
5. What is the cost of a medium size cutting tip?
6. How does the volume of weld metal compare in the two cases shown below?



a b

References: Job sheet 1. How to hook up an oxy-acetylene outfit.
" " 3. How to light and adjust flame.

Oxygen Lance

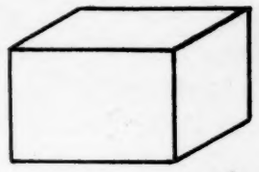
Specification: Pierce hole through piece of steel two inches or more in thickness.

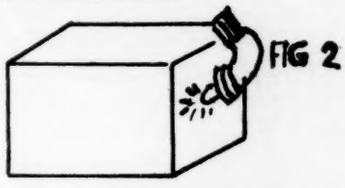
Material: Piece of steel two inches or more in thickness,
Length of lance pipe "Washed for Oxygen".

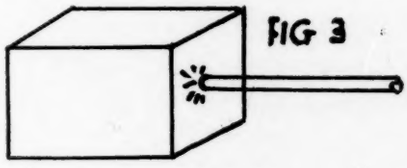
Tools: Lancing Regulator,
Wrenches,
Lancing hose with proper connection on each end.

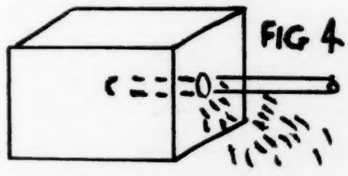
Procedure:

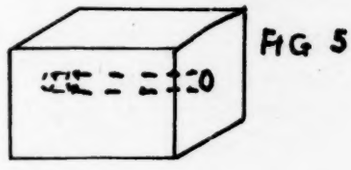
1. Place piece to be lanced in convenient position, with axis of hole horizontal (fig. 1).
2. Attach regulator to oxygen tank or tap.
3. Connect hose to regulator.
4. Insert length (or ½ length) of pipe which has been "washed for oxygen."
5. Hook-up cutting or welding outfit, W-1-O.
6. Station helper at oxygen valve. Agree on signal you will give him to open oxygen valve.
7. Have other helper light and adjust torch.
8. Have other helper heat to a bright red, the spot where hole is to be started (fig. 2).
9. Remove torch and place end of lance pipe against heated spot (fig. 3).
10. Signal helper to open oxygen valve *just a little.*
11. Feed pipe into hole, twisting it back and forth and occasionally withdrawing it a half inch or so.
12. Signal for more oxygen before continuing, if necessary. Use just enough to keep the cut going.
13. When hold is completed, signal helper to shut off oxygen and withdraw pipe from hole.











Questions:
1. Would a heavier-walled pipe give better results?
2. If you were lancing a hole through a piece of steel 2 feet thick, and the cut stopped when you were half way through, how could you continue?
3. What would be liable to happen if a welding regulator were used?
4. What causes a regulator to freeze?
5. How much does a length of lancing pipe cost?

References:
Job sheet 1. How to hook up an oxy-acetylene outfit.
" " 2. How to light and adjust flame for welding.
" " 3. How to light and adjust flame for cutting.

III Job Descriptions

A good job description, showing the duties and responsibilities of each worker, is almost indispensable for increasing the efficiency of the men, particularly newly hired ones.

It offers a check list which aids the foreman in seeing that each man is doing what he should properly; it aids in identifying the weak points in the performance of a man, or a group working together; it aids merit rating, and offers a good guide for transfers and promotions.

Where there is a job training program it makes this more efficient, because the instructor can readily make a check list of points to be watched, and then need train only on weak points. If operator instructors are used it makes their instruction more systematic.

Below is given a job description, which may serve as a model for those wishing to work out job descriptions, or to relate the ones they have to other personnel practices, particularly training.

Job Description, Rotary Shears

Shearing is the process of cutting cold reduced strip into proper lengths and widths to meet the requirements of the customer's order. The sheared sheets are oiled, piled, weighed, and pushed down the ramp to be picked up by the Annealing Department.

Duties and Responsibilities

Shearman. The shearman is responsible for the quality of the product, for the work of his crew, and the safety of the men working on and about the shear line. Orders must be sheared properly, oiled when necessary and piled in a straight even pile. The correct number of sheets for each lift must be recorded on the coil ticket, and no shear scratches or marks can be allowed on the finished product. The shearman will measure the length and width of each new order to insure correct shearing and will inspect at frequent intervals for scratches and bad edges to check the work of the first helper. When changing sizes the shearman will instruct the 1st helper to set the end knives, and he will set the side shear knives with the help of the number 3 helper. He will see that the 1st helper is given an opportunity to mike the strip before shearing is begun and at the end of each coil.

1st Helper. The first helper is responsible for miking the sheets for proper gauge at the front and back end of each coil sheared. He will set the gears controlling the length of the sheets at the instruction of the shearman, and inspect the top sheet of every lift for shear scratches and defects. His duties are to work with the 2nd helper in keeping the piler box ready for each lift.

2ND HELPER. The second helper's duties consist of piling the sheets in the piler, and setting the piler box for each new lift. He is responsible for keeping the pile straight and even.

3RD HELPER. It is the duty of the third helper to start the coils into the shearline, and pile scrap and waster sheets in their proper pile. He will bring the coil tickets from coils next to be sheared to the shearman, and will help the shearman set the side shear for changes in width.

The duties of the helpers may be alternated to relieve monotony, but the responsibilities of "miking" and setting the knives and inspecting will remain constant to prevent confusion in placing blame for possible errors.

Peace Time Economy is Permeated with Inefficiency and Waste, so Every Effort Should be Made to Place a Given Output in the Hands of Consumers in Wartime with Less Expenditure of Productive and Distributive Resources than Before the War.

Economist Views Personnel Practices

By H. Fabian Underhill
University of Illinois,
Urbana, Ill.

For over a century economists have maintained that under competitive conditions the best way in which labor might increase wages was by increasing its productivity and that management's best method of increasing net returns was to cut cost per unit—preferably by increasing productivity. Almost unanimously economists have condemned attempts to increase the income of an individual or group by monopolistic practices that would reduce the social (or "national") income.

Scientific Management

Under modern industrial conditions, however, it is difficult for the individual worker consciously to increase his output and impossible for him to do so on the assembly-line, though it still remains possible by means of a "slow down" or by outright sabotage to curtail production. Thus, where large groups work together it must be the responsibility of management to see that conditions are conducive to maximum output. With this in mind many economists hailed the advent of scientific management at the end of the nineteenth century.

But they forgot what many business men forget: that conditions of work include more than physical environment. And from the dawning realization of this sprang modern personnel management with its emphasis on the human or psychological elements. Except for price or wage incentives the economist is not generally equipped to deal with these elements, but he may perhaps be permitted to examine the methods used to keep the workers satisfied, in order to ascertain their possible effects, not on the individual firm, but on the economy as a whole.

Wage Incentives

To an employer wages are frequently the most immediate problem to be met. The most obvious method of wage payment, though perhaps not the most common, is the straight piece rate. Provided the rate is properly set to award the worker the marginal productivity of the group, this method is economically acceptable. With a fixed rate per piece the burden lies upon the employer to improve processes in order to reduce costs and prices, and since he bears the major burden he should reap the major benefit of such a reduction. If, however, by increasing their pace the workers are able to produce more units on each machine, some, at least, of the gain from reduction in unit cost should inure to them.

That this actually occurs is shown by plants that utilize a graduated incentive wage such as the Halsey or Gantt plan. Such wage systems are, of course, rarely adopted with the sole view of paying the worker the additional amount that he has saved the company. More generally the primary purpose is to induce the workers to greater efforts. A psychologist rather than an economist must be asked to examine the effectiveness of this incentive, but in practice it usually works.

There are, however, variations on this theme that may be examined economically. One system, for instance, gives a part of the extra amount to the management, especially the foremen. Where the management's own efforts have been exerted in coordinating production, as must necessarily be the case in assembly-line work, this is a fair method. However, if the increment depends solely on the worker's own increased effort or learning, then he should receive the gain. The proportionate shares would, of course, have to be calculated in each individual case.

Time Payment

Perhaps the most common type of wage system is still the time payment. This has the social advantage of enabling employed workers readily to calculate their incomes and to budget their expenditures, and is occasionally supplemented by the guarantee of employment. Business, however, finds it more difficult to anticipate the unit cost of production, though perhaps this is the only feasible method of paying wages for non-routine work. Payment by time, whether it be hour, day, or month, makes it harder for the economist to determine whether workers are obtaining a wage equivalent to their marginal productivity, but does not economically invalidate this method of payment.

Another suggestion that has recently been popular is the use of the sliding scale for setting wage rates. In the form that makes the wage rate depend on the price of the product produced by the firm this is obviously another method for sharing the risks of management with the workers, and all previous criticism of this device still holds. Its one advantage would seem to be the possibility of retaining workers while their marginal productivity is temporarily low, instead of laying them off or seeking other means of stabilizing employment. On the other hand, in a secu-

larly declining business it may be a means of retaining workers who might better seek places in younger industries. Why should wages depend on the prosperity of just one industry?

Cost of Living Base

THE other common form of sliding-scale wage, in which wages vary with the cost of living, is more defensible, for cost of living often varies with business activity and the returns to the other factors of production. Even in this case, however, there must be provision for periodic revision of the basic rate in order to prevent the complete stagnation of real wages. Thus it is obvious that to base arguments against a wage-increase solely on comparative costs of living is at least ingenuous and at worst indicative of a desire to prevent an improvement in labor's wellbeing.

For many years employers and employees have railed at each other over the restriction of output. Where such restriction is instituted by an employer in an attempt to spread seasonal work over a longer period, the economist will commend the procedure, for in this manner less idle equipment will be needed, the overhead costs will be cut, and prices to the consumer may be reduced. The advantages of needing a smaller amount of finance capital with less risk to the individual investor and of reducing the amount of seasonal unemployment are also obvious. In reducing unemployment the employer may under many of our state unemployment compensation tax laws qualify under merit-rating provisions for a further reduction in his individual tax costs.

Restriction of Output

ON THE other hand employers often reduce output in order to maintain or raise prices. Measured by the economic criterion of providing maximum satisfaction to the consumer, this practice is obviously unsound.

Unfortunately, an employer's attempts to restrict output, regardless of his purpose and the economic validity thereof, are likely to be met by a corresponding restriction on the part of his workers. Their natural reaction when they learn that a production quota has been set for a given period is that they will take at least that amount of time to achieve it. It is of little use to blame the workers for this attitude: it is purely a defense reaction. But the employer can and should take prior action to prevent it by means of adequate assurance that their income for the period will not be less if the production is more rapidly achieved. Indeed, a monetary value may be added to much prized leisure time by the use of incentive wages that give the workers an added reward for achieving the quota in less than the full period; this, however, will still leave the plant standing idle a part of the time.

One may often blame the workers for still further restricting output in the hope of forcing the employment of more men. In the short run this may, indeed, have the desired effect as an employer tries to fulfill his commitments. With a piece-rate method of payment such a practice raises costs only as more machines must be in-

stalled for the additional workers. Nor will the reduction in their earnings be encouraging to the employees. But a small output per employee with the same time-wage must raise the unit cost of production, so that only when the working force has previously been underpaid (with resultant "unearned" gains to the management) can prices be kept at the same level; in other cases they must rise to offset the increased cost. This will generally reduce the amount of product demanded, and may thus in the long run curtail rather than expand employment.

Workers Know Little Economics

THE explanation for such conduct on the part of labor is simple. Seldom are workers well versed in economics and able to predict the long run results; since in general they live from hand to mouth they rarely think in terms of other than the short run. They also have the excuse that many employers restrict output, and the old proverb that what is sauce for the goose is also sauce for the gander is widely believed. Furthermore, where labor is strongly organized it is a sound business tactic to create a scarcity value for its services in order to obtain a larger return, although from an economic standpoint this will injure the consumer.

In general, then, it may be said that while the motives for restricted output may be readily understood, the practice must be condemned unless undertaken for stabilization with the cooperation of both employers and employees.

The economist may note with approval the development of the practice of paying workers adequately for worthwhile suggestions. If an employee adds to the productivity of the plant, he should be rewarded. Psychic income is rather outside the ken of economics, but it seems likely that public acknowledgment of the author of the suggestion would add to the satisfaction and efficiency of the working force. Of course, if a man is hired solely to undertake experimentation with a specific understanding that all discoveries belong to the employer alone, no further reward is necessary, though some may be advisable.

Viewing the Whole Economy

BOTH efficiency experts and personnel managers seem to have the idea that it is necessary to choose men to fit the machine or process rather than alter the machine to fit the man. From the standpoint of the individual enterprise with an already large investment in fixed capital this is quite understandable, but it is by no means certain that there is only one best way of performing any task; it may well happen that, regardless of training, another person could perform at least as well but in a different manner.

Yet it may be that an economist's criticisms of the methods used in personnel work are unjustified. For personnel administration looks at the matter from the viewpoint of the individual firm and its welfare, whereas the economist is supposed to view the whole economy with special reference to the maximum satisfaction that may be afforded to the consumers.

Book Reviews

Book Review Editor, Mr. Everett Van Every
University of California, Berkeley, Cal.

INDUSTRIAL RELATIONS IN WARTIME

Bibliography, compiled by Waldo Chamberlin. Palo Alto, Cal: Stanford University Press, 1940. 239 pp. Price $3.00

Reviewed by Book Review Editor

With the United States facing new problems approximating wartime conditions, this annotated bibliography covering industrial relations in Great Britain between 1914 and 1918 is particularly significant.

The book is a catalogue of a small portion of the monumental collection in the Hoover Library on War, Revolution and Peace at the Stanford University. Sections are devoted to society publications and periodicals; general works including reference sources, statistical abstracts, private and governmental publications. Material is also arranged under Specific Wartime Problems of Wages and Hours; Welfare and Working Conditions; Women in Men's Jobs; Dilution, Substitution and Transfer of Workers; Demobilization and Reconstruction. Other sections are devoted to arbitration and conciliation in wartime; government control of factories, conscription of labor and capital and government ownership in certain industries.

The publishers promise another bibliography covering the same material for Germany, chiefly the period 1933–40, to be ready soon.

WAGE AND HOUR MANUAL

Compiled and Published by Bureau of National Affairs. Washington, D. C., 1940. 648 pp. Price $5.00

Reviewed by Book Review Editor

Wartime conditions may well be expected to intensify certain phases of labor relations rather than nullify them. One such set of problems is wages and hours. Well informed persons look to the Fair Labor Standards Act to play an important part in our armament era ahead.

The Wage and Hour Manual contains all the important source material on federal and state regulation of wages and hours. As a reference source, it gives the

text of the Act, the documents which make up its legislative history and the Rules and Regulations issued under the Act. As a guidebook, it furnishes ready information on minimum wages, maximum hours, overtime payments, keeping records, Interpretative Bulletins, opinions of the administrator, court rulings, and official answers on concrete questions.

The second part of the manual serves as a guide to regulations regarding wages and hours that must be observed in contracts with the Federal Government. The third part digests state statutes authorizing or imposing regulation of wages and hours on intra-state industries, together with the wage orders which have been issued under such orders.

This work will be cited in courts of law as "1940 WH Man." It is authoritative and complete, and should be familiar to every personnel executive concerned with wages and hours.

HOW TO TRAIN SUPERVISORS

Manual and Outlines for Determinant Discussion

By R. O. Beckman. New York: Harper & Bros., 1940. 290 pp. and bibliography

Reviewed by Mack Stoker

This is a very excellent book, one that should be within reach of every man in industry who has anything to do with training. The subject matter is very well organized and clearly presented. It gives readily usable answers to practical questions encountered by conference leaders.

The subtitle is, however, a more accurate description of the contents of the book than is the title, for this is essentially a book on the leading of one kind of conference, or *determinate discussion* as Mr. Beckman chooses to call it. As such I do not see how the book could be improved very much. Its weakness lies in its attempt to sell one form of conference as a new device supplanting conference methods.

Since this may be a matter of opinion, it demands some support. In the first place, I cannot accept his definition of a "conference." It would not be accepted by any conference leader I know. Without exception, they would call such "conferences" mere bull sessions and would condemn them as strongly as Mr. Beckman does.

In the second place, I cannot see "determinate discussion" as a new development in group discussion technique. Mr. Beckman has contributed some refinements and has done a beautiful job of presentation, but basically the thing he is selling is a well-known and long-tried form of conference, whether you call it "determinate discussion," directed conference, or developmental teaching.

Thirdly, while the directed conference is a teaching tool that has proved its effectiveness for at least twenty years, it is effective only when restricted to the type of situation for which it is designed—and it is not designed to take the place of what is commonly referred to as a conference and more technically known as a free conference. True, the borderline between a free conference and a directed conference gets very thin at times, but the basic psychological difference is important. The directed conference is essentially a selling device. Somebody knows the answers, writes them up and then the conference leader hornswoggles the group into underwriting the answers as their own. The free conference, on the other hand, is a tool for developing the answers out of the experience of the group. Obviously the methods will differ; what's more important, the supporting attitude of top management must be vastly different.

Used with the recognition of these weaknesses, Mr. Beckman's book should be of great value for conference leaders; for the training of leaders of "determinate discussion" it should be almost ideal.

STUDENT PERSONNEL WORK

By E. G. Williamson and T. R. Sarbin. Minneapolis, Minn: The Burgess Publishing Company, 1940. 115 pp. mimeo. Price $1.75

Reviewed by Book Review Editor

University and school personnel officers will find the recent survey report of the University of Minnesota to be a good factual picture to the student personnel work carried on at that institution. Minnesota has achieved a position of national leadership in developing services created to assist students in their personal problems, and the authors have prepared the study as an interesting reference work as well as a report of the student personnel program for the president's committee.

The work is analytical and exhaustive in its coverage of accepted personnel practices today in universities and colleges. It is contended that student personnel work today "is a supplementary type of teaching" with dual functions: the first responsibility is to help students master problems that interfere with their academic progress; and the second responsibility, to overcome the non-intellectual problems which contribute to the students' total life adjustments.

Chapter VI, Implications of the Survey, is a particularly good appraisal and statement of the philosophy of student personnel work which can be applied to any educational program today. In discussing the total educational process of the university the authors concluded that "Student personnel work is now widely accepted as an important and integral part of higher education. It should be studied with a view of increasing its organizational effectiveness to the maximum."

This report is recommended to all persons engaged in student personnel work.

DICTIONARY OF OCCUPATIONAL TITLES, PART I

Prepared by Division of Standards & Research, United States Department of Labor. Washington, D. C. U. S. Government Printing Office, 1939.

1287 pp. Price $2.00

Reviewed by Book Review Editor

In the broadest sense this is one of the most important personnel projects of recent years . . . a dictionary of job definitions. Although it has been prepared primarily for the use of public employment offices, it is a standard source of job information and techniques and should prove to be a great tool for all those concerned with occupations, employment, counseling and management.

Employment interviewers, counselors, and industrial relations executives cannot be expected to have a range of job knowledge and experience that will cover every conceivable need. They need dependable source material, and such a workbook as this one is well worthy of recommendation to all who work with jobs, their definitions and classifications.

The development of the occupational material is divided into two major phases: a study of jobs as they exist in the country today, and an analysis of workers to discover and describe patterns of skill and ability. It is apparent in glancing through the definitions that detailed studies of workers have been made to determine skills, abilities and personal characteristics needed on the jobs. We find Personnel Manager defined and classified as follows:

> MANAGER, PERSONNEL: director, personnel (any ind) 0-39.83. Formulates policies relating to the selection, training, promotion, welfare, compensation, recreation and discharge of employees, and other employer-employee relationships, supervising subordinates engaged in executing the policies or performing these duties himself: directs the hiring of employees, *ref.* MANAGER, EMPLOYMENT; the training of the employees, *ref.* DIRECTOR, EDUCATIONAL: welfare activities, *ref.* DIRECTOR, WELFARE; and recreational activities, *ref.* DIRECTOR, RECREATION I. The scope of personnel work and the duties and responsibilities vary widely in different establishments, depending upon the policies of the management.

Another interesting recommendation of the work, aside from its own importance, is the panel of personnel authorities who served on the technical board of the project. Among them we find J. Walter Dietz, Ismar Baruch, Bryce M. Stewart, W. V. Bingham, Edwin A. Lee, Donald G. Paterson, Morris S. Viteles, Isador Lubin and Thomas G. Spates.

THE COLLECTIVE LABOR AGREEMENT

By Elias Lieberman. New York: Harper & Bros., 1939. 233 pp. Price $3.00

Reviewed by Donald McClure

Here is a book that seems to have become a catalogue of collective agreement practices and terms. The author is a labor attorney and has not concealed the labor

point of view in preparing his material. The value of this work lies principally in its factual material (clauses, sample contracts, decisions, etc.) and the legalistic reasoning and explanations that account for the federal labor law developments.

The first part of the book deals with historical background, legal status and negotiations. Part two dwells on specific contract wording with specimen clauses and notes on problems and legality. These divisions of the book are followed by an appendix containing a list of union organizations, by industry and trade, whose collective labor agreements are included in the study. A Bibliography, an index of cases cited and an index of clauses are of special value.

The second part is the most comprehensive and helpful to the personnel manager who would know his labor relations. Here we find problem headings, those which confront employers and employees in negotiating contracts, the law involved in the specific problems, the provisions of existing contracts covering such problems and by who approved. To those whose job it is to participate in negotiations, or to the unitiated who are expected to know, much valuable material is to be found here. It is a practical treatise and can be used for immediate reference.

INDEPENDENT LABOR ORGANIZATIONS AND THE NATIONAL LABOR RELATIONS ACT

By Frank T. Bow. New York: Prentice-Hall, Inc., 1940. 120 pp. Price $2.00

Reviewed by Book Review Editor

Under the NLRA employees are free to refrain from joining any labor organization at all or to organize and bargain collectively through any kind of labor organization which they desire, *provided only that their employers do not interfere with or support that labor organization in any way*.

On this thesis, the premise of the National Labor Relations Act, the author has set out to show employees, who may not wish to become members of a national labor organization, how to organize their own independent organization for the purpose of bargaining collectively with their employers and at the same time enjoy the protection of the NLRA in so doing.

The author contends that Congress had no intention in passing the Act, to confine representation for collective bargaining to the national unions. Chapters I and II treat of the Act, Collective Bargaining and how it applies to the independent organization. Chapter III is devoted to the Constitution and the mechanics of setting up an independent labor organization, including membership, initiation fees, dues, assessments, meeting plans, elections, promotion ideas, delegates, "don'ts," etc. The appendix gives an excellent example of a constitution and the reference table of cases consists of nine outstanding decisions—the structure on which the labor law has been built.

Able legal counsel is evident throughout the text, and this small book should prove very helpful and encouraging to some employees.

TRAINING PROCEDURE

By Frank Cushman. New York: John Wiley & Sons, Inc., 1940. 230 pp. Price $2.00

Reviewed by Book Review Editor

Improvement in the performance of work is the principal objective of the scope of the material covered in this volume. The author appeals to the interests of all executives, as well as the man in charge of training, and ventures across the whole field of training for employed personnel.

The work is more than a supplement to the author's earlier volume, *Foremanship & Supervision*, in which various phases and uses of the conference technique are advanced. Rather in this book the reader feels he has a fairly comprehensive treatment of job-training as a whole. The size of the volume might suggest the term "candid"—brief, direct and complete. The text material and style of writing is sharp and clearly written. Each chapter is laden with practical training ideas and methods that have been lifted from the daily work experiences of training experts.

In sharing opinions on this book with a Pacific Coast authority on training and conference leading I was surprised to have him rate the work as the best material available today on the real fundamentals of job-training and directing leadership. And now that the national defense emphasis is on training—quick and intensive instructional procedure—this phase of industrial management becomes of extreme importance.

LABOR RELATIONS IN THE AUTOMOBILE INDUSTRY

By William Heston McPherson. Washington, D. C.: The Brookings Institution, 1940. 173 pp. Price $1.50

Reviewed by Book Review Editor

Labor relations in America may well see itself mirrored in the mass production industries of which the automobile has taken the unique lead.

In this little book we find a thorough unvarnished picture of an industry as it has been organized by the U.A.W. An industry hardly thirty years old, suddenly finds itself within a period of three years, acknowledging the strength and influence of unionization and seeking to share in some of the basic problems of labor management.

The chapters on Unions, Union Recognition and Collective Agreements, and Grievance Procedure are particularly worth noting. The chapter on Productive Efficiency is a timely contribution in today's problems of labor control and industrial management. Pressures and cross influences cut sharply at the production line, and getting out the day's work under the present state of collective bargaining is a fitting chess-move for all of management to study through.

The story of the U.A.W. in automobiles is a concise report of labor relations today in one industry, but thorough and typical enough to have predictive value to all industries.

Question re: INDUSTRIAL CONFLICT

Let a reviewer blunder or err but a trifle—and publisher's clouds of thunderous protests gather swiftly as if they had been lying in wait.

In the September issue of The PERSONNEL JOURNAL we appraised *Industrial Conflict*, the first year book of the Society for the Psychological Study of Social Issues, called it one of the important works of our time in such a field . . . and added, that to our surprise, it was apparently being quietly suppressed.

The publishers have informed us that *Industrial Conflict* has not been subjected to any edict so far as they know, is not being suppressed in any manner, nor withdrawn from the bookmarket. Therefore, we would appreciate learning if our readers have any difficulty in securing this book.

BOOK REVIEW EDITOR.